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10/014,602	12/14/2001	Oran Uzrad-Nali	Q66695	2020

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EXAMINER	
ENGLAND, DAVID E	

ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 12/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/014,602	UZRAD-NALI ET AL.	
	Examiner	Art Unit	
	David E. England	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 September 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 – 9, 12 – 24, 27 – 56, and 59 – 79* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 – 9, 12 – 24, 27 – 56, and 59 – 79* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

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DETAILED ACTION

1. Claims 1 – 9, 12 – 24, 27 – 56, and 59 – 79 are presented for examination.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 3 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. In claim 3, it is unclear in the specification how said host computer is used "solely" for "initializing the networked system". Applicant is asked to point to sections of the specification and drawing to support their arguments.

5. Claim 6 is rejected for its dependency on claim 3.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1 – 5, 7 – 9, 12 – 17, 19 – 24, 28, 29, 37, 44 – 49, 51, 53 – 56, 78 and 79 are rejected under 35 U.S.C. 102(e) as being anticipated by Roach et al. U.S. Patent No. 6314100, (hereinafter Roach).

8. Referencing claim 1, as closely interpreted by the Examiner, Roach teaches a networked system comprising:

9. a host computer, (e.g., col. 3, lines 36 – 60);

10. a data streamer connected to said host computer, said data streamer capable of transferring data between said host and networked resources using a memory within said data streamer without moving the data between memory locations within the memory during processing by said data streamer, (e.g., col. 6, line 35 – col. 7, line 25 & col. 7, lines 37 – 67, "pointers and storing data on a buffer with available space");

11. a communication link connecting said data streamer and networked resources, (e.g., col. 8, lines 11 – 41).

12. Referencing claim 2, as closely interpreted by the Examiner, Roach teaches said communication link is a dedicated communication link, (e.g., col. 1, lines 31 – 40).

13. Referencing claim 3, as closely interpreted by the Examiner, Roach teaches said host computer is used solely for initializing the network system, (e.g., col. 1, line 58 – col. 2, line 10, *"PVC"*).

14. Referencing claim 4, as closely interpreted by the Examiner, Roach teaches the networked resources include networked storage devices, (e.g., col. 8, lines 16 – 56).

15. Referencing claim 5, as closely interpreted by the Examiner, Roach teaches the dedicated communication link is a network communication link, (e.g., col. 1, line 58 – col. 2, line 10, *"PVC"*).

16. Referencing claim 7, as closely interpreted by the Examiner, Roach teaches the network communication link is at least one of:

17. a local area network (LAN) link, a wide area network, (e.g., col. 1, lines 31 – 40).

18. Referencing claim 8, as closely interpreted by the Examiner, Roach teaches the network communication is based on at least one of:

19. Ethernet, Internet protocol (IP), asynchronous transfer mode (ATM) protocol, (e.g., col. 2, lines 10 – 19).

20. Referencing claim 9, as closely interpreted by the Examiner, Roach said data streamer is configured to relieve said host from at least upper level protocol (UPL) processing, (e.g., col. 4, lines 36 – 49).

21. Referencing claim 12, as closely interpreted by the Examiner, Roach teaches

22. at least one host interface, interfacing with said host computer, (e.g., col. 1, line 58 – col. 2, line 10);

23. at least one network interface, interfacing with the networked resources, (e.g., col. 1, line 58 – col. 2, line 10);

24. at least one processing node, capable of generating additional data and commands necessary for network layer operations, (e.g., col. 4, lines 36 – 67);

25. an admission and classification unit that initially processes the data, (e.g., col. 1, line 58 – col. 2, line 10);

26. an event queue manager that supports processing of the data, (e.g., col. 5, lines 21 – 65, *"manager engine"*);

27. a scheduler that supports processing of the data, (e.g., col. 5, lines 21 – 65, *"PENG"*);

28. a memory manager that manages the memory, (e.g., col. col. 5, lines 21 – 65, *"PENG"*);

29. a data interconnect unit that receives the data from said admission and classification unit, (e.g., col. 5, lines 48 – 58); and

30. a control hub, (e.g., col. 5, lines 48 – 58).

31. Referencing claim 13, as closely interpreted by the Examiner, Roach teaches said processing node is further connected to an expansion memory, (e.g., col. 8, lines 30 – 56).

32. Referencing claim 14, as closely interpreted by the Examiner, Roach teaches said expansion memory is a code memory, (e.g., col. 8, lines 30 – 56).

33. Referencing claim 22, as closely interpreted by the Examiner, Roach teaches said event queue manager is capable of managing at least:

34. an object queue, (e.g., col. 7, lines 1 – 19); and

35. an application queue, (e.g., col. 7, lines 1 – 19).

36. Referencing claim 23, as closely interpreted by the Examiner, Roach teaches said object queue points to a first descriptor while a first header is processed, (e.g., col. 5, lines 32 – 47).

37. Referencing claim 24, as closely interpreted by the Examiner, Roach teaches a header of data processed is in one of:

38. a second communication layer, third communication layer, fourth communication layer, fifth communication layer, (e.g., col. 7, lines 37 – 67).

39. Referencing claim 28, as closely interpreted by the Examiner, Roach teaches said object queue holds at least a start address to the header information, (e.g., col. col. 7, lines 37 – 67).

40. Referencing claim 29, as closely interpreted by the Examiner, Roach teaches said object queue hold at least a end address to the header information, (e.g., col. col. 7, lines 37 – 67).

41. Referencing claim 37, as closely interpreted by the Examiner, Roach teaches the system is adapted to receive at least one packet of data with headers from a network resource and

opening a new descriptor if the headers do not belong to a previously opened descriptor, (e.g., col. 7, lines 1 – 19).

42. Claims 15 – 17, 19 – 21, 44 – 49, 51, 53 – 56, 78 and 79 are rejected for similar reasons stated above.

43. Claim 77 is rejected under 35 U.S.C. 102(e) as being anticipated by Starr et al. U.S. Patent No. 6807581, (hereinafter Starr).

44. Referencing claim 77, as closely interpreted by the Examiner, Starr teaches a method for transferring application data from a host computer to a network resource comprising:

45. a) receiving data from the host computer, (e.g., col. 2, lines 21 – 62 & col. 7, lines 23 – 42);

46. b) receiving destination address from the host computer, (e.g., col. 2, lines 21 – 62 & col. 7, lines 23 – 42);

47. c) queuing a transmission information in a transmission queue, (e.g., col. 2, lines 21 – 62 & col. 7, lines 23 – 42);

48. d) updating a descriptor pointing to portion of the application data to be sent next, (e.g., col. 25, line 54 – col. 26, line 37);

49. e) creating headers for the transmission, (e.g., col. 2, lines 21 – 62 & col. 7, lines 23 – 42);

50. f) attaching the portion of the application data to the headers, (e.g., col. 2, lines 21 – 62 & col. 7, lines 23 – 42);

51. g) transmitting the portion of the application data and headers over the network, (e.g., col. 2, lines 21 – 62 & col. 7, lines 23 – 42);

52. h) repeating steps d through g until all of the application data is sent, (e.g., col. 2, lines 21 – 62 & col. 7, lines 23 – 42); and

53. i) indicating to the host computer that transfer is complete, (e.g., col. 2, lines 21 – 62 & col. 7, lines 23 – 42).

Claim Rejections - 35 USC § 103

54. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

55. Claims 6, 18 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roach in view of Starr et al. U.S. Patent No. 6807581, (hereinafter Starr).

56. Referencing claim 6, as closely interpreted by the Examiner, Roach does not specifically teach the dedicated communication link is selected from a group consisting of personal computer interface (PCI), PCI-X, 3GIO, InfiniBand, SP1-3, or SPI-4. Starr teaches the dedicated

communication link is selected from a group consisting of personal computer interface (PCI), PCI-X, 3GIO, InfiniBand, SPI-3, or SPI-4, (e.g., col. 2, lines 21 – 49). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Starr with Roach because utilizing a PCI is well known in the computer arts and is used in communicating information to and from computers and other devices.

57. Claims 18 and 50 are rejected for similar reasons as stated above.

58. Claims 30 – 36, 38 – 43 and 60 – 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roach in view of Fishler et al. U.S. Patent No. 5954794 (hereinafter Fishler).

59. Referencing claim 30, as closely interpreted by the Examiner, Roach does not specifically teach said application queue points to said first descriptor instead of said object queue if at least an application header is available. Fishler teaches said application queue points to said first descriptor instead of said object queue if at least an application header is available, (e.g., col. 3, lines 38 – 55 & col. 8, line 43 – col. 9, line 39). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Fishler with Roach because it would be more efficient for a system that utilizes two different object queues to operate separate pointers so only information pertaining to that queue is stored in said queue.

60. Referencing claim 31, as closely interpreted by the Examiner, Roach does not specifically teach said first descriptor points at least to a beginning of the application header. Fishler teaches

said first descriptor points at least to a beginning of the application header, (e.g., col. 3, lines 38 – 55 & col. 8, line 43 – col. 9, line 39). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Fishler with Roach because of similar reasons stated above.

61. Referencing claim 32, as closely interpreted by the Examiner, Roach does not specifically teach said application queue maintains address of said beginning of the application header. Fishler teaches said application queue maintains address of said beginning of the application header, (e.g., col. 3, lines 38 – 55 & col. 8, line 43 – col. 9, line 39). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Fishler with Roach because of similar reasons stated above.

62. Referencing claim 33, as closely interpreted by the Examiner, Roach does not specifically teach said first descriptor points at least to an end of said application header. Fishler teaches said first descriptor points at least to an end of said application header, (e.g., col. 3, lines 38 – 55 & col. 8, line 43 – col. 9, line 39). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Fishler with Roach because of similar reasons stated above.

63. Referencing claim 34, as closely interpreted by the Examiner, Roach does not specifically teach said application queue maintains address of said end of said application header. Fishler teaches said application queue maintains address of said end of said application header, (e.g., col.

3, lines 38 – 55 & col. 8, line 43 – col. 9, line 39). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Fishler with Roach because of similar reasons stated above.

64. Referencing claim 35, as closely interpreted by the Examiner, Roach does not specifically teach when all application headers are available, data is transferred to said host computer in a continuous operation. Fishler teaches when all application headers are available, data is transferred to said host computer in a continuous operation, (e.g., col. 3, lines 38 – 55 & col. 8, line 43 – col. 9, line 39). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Fishler with Roach because of similar reasons stated above.

65. Referencing claim 36, as closely interpreted by the Examiner, Roach does not specifically teach said continuous operation is based on pointer information stored in said application queue. Fishler teaches said continuous operation is based on pointer information stored in said application queue, (e.g., col. 3, lines 38 – 55 & col. 8, line 43 – col. 9, line 39). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Fishler with Roach because of similar reasons stated above.

66. Referencing claim 39, as closely interpreted by the Examiner, Roach does not specifically teach the system is adapted to transfer control of the descriptor to the application queue if at least one application header is available and is further adapted to store a start and end address of the application header in the application queue. Fishler teaches the system is adapted to transfer

control of the descriptor to the application queue if at least one application header is available and is further adapted to store a start and end address of the application header in the application queue, (e.g., col. 3, lines 38 – 55 & col. 8, line 43 – col. 9, line 39). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Fishler with Roach because of similar reasons stated above.

67. Referencing claim 40, as closely interpreted by the Examiner, Roach does not specifically teach the system is adapted to transfer the data to the host based on the stored application headers. Fishler teaches the system is adapted to transfer the data to the host based on the stored application headers, (e.g., col. 3, lines 38 – 55 & col. 8, line 43 – col. 9, line 39). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Fishler with Roach because of similar reasons stated above.

68. Referencing claim 42, as closely interpreted by the Examiner, Rosch does not specifically teach the system is adapted to update an earlier created descriptor to point to a portion of the data that is to be sent next. Fishler teaches the system is adapted to update an earlier created descriptor to point to a portion of the data that is to be sent next, (e.g., col. 3, lines 38 – 55 & col. 8, line 43 – col. 9, line 39). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Fishler with Roach because of similar reasons stated above.

69. Claims 38, 41, 43 and 60 – 76 are rejected for similar reasons stated above.

70. Claims 20, 27, 52 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roach as applied to claims 1, 22 and 23 above, and further in view of Muller et al. (6453360), (hereinafter Muller).

71. As per claim 27, as closely interpreted by the Examiner, Roach does not specifically teach said object queue points to a second descriptor if a second header has a same tuple corresponding to the first header. Muller teaches said object queue points to a second descriptor if a second header has a same tuple corresponding to the first header, (e.g., col. 25, lines 16 – 27). It would have been obvious to one of ordinary skill in the art, at the time the invention was filed, to combine Muller with Starr because if the second header "tuple" or address is different then the first address there could be an error in addressing the packet to a specific user, therefore, the system would have to send an error message to the sending node to notify the sending node about the error so it can be remedied.

72. Claims 20, 52 and 59 are rejected for similar reasons as stated above.

Response to Arguments

73. Applicant's arguments with respect to claims 1 – 9, 12 – 24, 27 – 56, and 59 – 76 have been considered but are moot in view of the new ground(s) of rejection.

74. Applicant's arguments filed 09/07/2005, in regards to claim 77, have been fully considered but they are not persuasive.

75. In the remarks, Applicant argues in substance that Independent claim 77 includes limitations analogous to claim 1. Therefore the arguments discussed above are analogously valid.

76. As to part 1, Claim 77 is more specific than claim 1 and teaches more in-depth details that claim 1 does not. Therefore, Claim 1 is not completely analogous to claim 77 and cannot be argued and be analogously compared to as stated by the Applicant.

Conclusion

77. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

78. a. Spinney et al. U.S. Patent No. 6426943 discloses Application-level data communication switching system and process for automatic detection of and quality of service adjustment for bulk data transfers.

79. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David E. England whose telephone number is 571-272-3912. The examiner can normally be reached on Mon-Thur, 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on 571-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David E. England
Examiner
Art Unit 2143

De

JEFFREY PWU
PRIMARY EXAMINER